

Toronto Western Hospital ANTIBIOGRAM

All Inpatients

January 1, 2020 - December 31, 2020

Blood Isolates – % Susceptible

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid

≥80% Susceptible ■
 70-79% Susceptible ■
 ≤69% Susceptible ■

ALL BACTERIA	509	—	7	21	59	63	59	48	58								60						
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ALL GRAM-NEGATIVE BACTERIA	140	100	6	57	71	99	86	45	62	72						87	77	97	96	99			
<i>Escherichia coli</i>	61	44	14	84	90	100	100	72	92	92						85	84	97	95	100			
<i>Klebsiella pneumoniae</i>	19	14	0	95	89	100	100	82	95	95						84	95	95	89	100			
<i>Pseudomonas aeruginosa</i>	16	11			94	94				94						88		94	100	94			
<i>Enterobacter cloacae</i>	12	9	0	0	0	100	100	0	0	0						100	92	100	100	100			
<i>Serratia marcescens</i>	8	6	0	0	0	100	100	0	0	0						100	100	100	100	100			
<i>Proteus mirabilis</i>	6	4	0	83	83	100	100	20	83	83						83	50	100	100	100			
<i>Klebsiella oxytoca</i>	5	4	0	100	100	100	100	40	100	100						100	100	100	100	100			

ALL GRAM-POSITIVE BACTERIA	369	100	7	7	2	54	49	49	47	49	56	86	49				53					99	
Coagulase-negative staphylococci	250	68				50	50	50	50	50		100	50	100			50					100	100
<i>Staphylococcus aureus</i> , all isolates	53	14				89	89	89	89	89		75	67	88			98					100	100
- methicillin-susceptible	47	13				100	100	100	100	100		78	76	89			100					100	100
- methicillin-resistant (MRSA)	6	2				0	0	0	0	0		50	0	83			83					100	100
Viridans group streptococci ^o	21	6									100											100	
<i>Enterococcus faecalis</i>	17	5	100	100	100																	100	
<i>Enterococcus faecium</i> , all isolates	13	4	8	8	8																	85	
- vancomycin-susceptible	11	3	10	10	10																	100	
- vancomycin-resistant (VRE)	2	1	0	0	0																	0	100
<i>Streptococcus anginosus</i> group ^o	6	2			0						100											100	

General Notes:

- Statistical validity of estimates of percent susceptibility for organisms for which there are fewer than 30 isolates reported is limited. Please take this into consideration when interpreting the reported results.
- Some organisms for which there were only very small numbers have been excluded from this report; however the total number of "ALL BACTERIA", "ALL GRAM-NEGATIVE BACTERIA", and "ALL GRAM-POSITIVE BACTERIA" listed includes these organisms.
- Reported susceptibilities for "ALL BACTERIA", "ALL GRAM-NEGATIVE BACTERIA", and "ALL GRAM-POSITIVE BACTERIA" reflect estimates only based on the weighted average of susceptibilities for all organisms included on this report as well as those that have been excluded, with assumptions made for those drugs for which susceptibilities were not tested.
- Susceptibility to doxycycline was predicted based on tetracycline susceptibility testing results.

Year-Specific Notes:

- Only a limited number of coagulase negative staphylococci isolates were tested for susceptibilities. The vast majority of coagulase-negative staphylococci are susceptible to vancomycin. If you have any questions, please contact the UHN/MSH Department of Microbiology.

Organism-Specific Notes:

- ° Viridans group streptococci: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.
- ° *S. anginosus* group: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.

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Respiratory Isolates – % Susceptible

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid			
																												≥80% Susceptible	70-79% Susceptible	≤69% Susceptible
ALL BACTERIA	261	—	10	20				75	91	57		39	58									75								
ALL GRAM-NEGATIVE BACTERIA	157	100	16	33				65	96	39		9	39			64					81	59	96	88	92					
<i>Pseudomonas aeruginosa</i>	48	31						83	91							85					85		92	98	94					
<i>Haemophilus influenzae</i> ^{^^}	28	18	79																											
<i>Klebsiella pneumoniae</i>	16	10	0	88				94	100	100		67	100			100					94	100	100	100	100					
<i>Enterobacter cloacae</i>	12	8	0	0				0	100	100		0	0			0					100	100	100	100	100					
<i>Serratia marcescens</i>	12	8	0	0				0	100	100		0	0			0					67	100	100	100	100					
<i>Klebsiella aerogenes</i>	12	8	0	0				0	100	100		0	0			0					100	100	100	100	100					
<i>Stenotrophomonas maltophilia</i>	10	6																			100	100								
<i>Escherichia coli</i>	8	5	0	50				50	100	100		33	75			75					75	62	88	0	100					
ALL GRAM-POSITIVE BACTERIA	104	100	2	2	2			88	84	84	82	84	84								72	68				97			97	
<i>Staphylococcus aureus</i> , all isolates	93	89						91	91	91	91	91									74	70	95			100			100	100
- methicillin-susceptible	85	82						100	100	100	100	100									73	71	95			100			100	100
- methicillin-resistant (MRSA)	8	8						0	0	0	0	0									88	62	100			100			100	100
<i>Streptococcus pneumoniae</i>	7	7				33	100							33	100						80	71			100				100	
<i>Mycobacterium tuberculosis complex</i>	3	3																												
Coagulase-negative staphylococci	1	1						0	0	0	0	0									0	0	0			100			100	100

General Notes:

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- Susceptibility to doxycycline was predicted based on tetracycline susceptibility testing results.

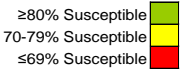
Organism-Specific Notes:

- ^{^^} *H. influenzae* and *H. parainfluenzae*: Susceptibility to ampicillin was determined using beta-lactamase testing. Beta-lactamase-positive isolates are resistant to ampicillin but are generally susceptible to amoxicillin-clavulanic acid and cefuroxime.
- [†] *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.

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All Non-Urine Isolates – % Susceptible

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Penicillin	Penicillin IV (meningitis)	Penicillin IV (non-meningitis)	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Ceftriaxone	Ceftriaxone (meningitis)	Ceftriaxone (non-meningitis)	Ceftazidime	Clindamycin	Erythromycin	Doxycycline	Ciprofloxacin	Moxifloxacin	Trimethoprim-Sulfamethoxazole	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
ALL BACTERIA	1112	—	9	21			65	73	60			46	57									75					



ALL GRAM-NEGATIVE BACTERIA	412	100	7	39			66	98	63			24	44			65					85	64	96	96	99		
<i>Pseudomonas aeruginosa</i>	104	25					88	91								88					89		94	99	95		
<i>Escherichia coli</i>	97	24	6	77			82	100	100			66	87			87					81	76	94	91	100		
<i>Enterobacter cloacae</i>	46	11	0	0			0	100	96			0	0			0					100	96	98	98	100		
<i>Klebsiella pneumoniae</i>	41	10	0	90			90	100	100			71	95			95					88	93	98	92	100		
<i>Haemophilus influenzae</i> ^{^^}	28	7	79																								
<i>Serratia marcescens</i>	22	5	0	0			0	100	100			0	0			0					82	100	100	95	100		
<i>Klebsiella aerogenes</i>	18	4	0	0			0	100	100			0	0			0					100	100	100	100	100		
<i>Stenotrophomonas maltophilia</i> [†]	16	4																			100	100					
<i>Proteus mirabilis</i>	13	3	0	92			92	100	100			17	92			92					85	77	100	100	100		
<i>Klebsiella oxytoca</i>	10	2	0	90			90	100	100			43	90			90					100	100	100	100	100		
<i>Citrobacter koseri</i>	5	1	0	0			0	100	100			0	0			0					100	100	100	100	100		
<i>Morganella morganii</i>	5	1	0	0			0	100	100			0	0			0					80	80	100	100	100		

ALL GRAM-POSITIVE BACTERIA	700	100	10	10	3		65	58	58	55	58	64				67	55				82				99	
Coagulase-negative staphylococci	318	45					54	54	54	54	54					75	57	88			87				100	100
<i>Staphylococcus aureus</i> , all isolates	243	35					89	89	89	89	89					77	69	96			100				100	100
- methicillin-susceptible	216	31					100	100	100	100	100					78	74	96			100				100	100
- methicillin-resistant (MRSA)	27	4					0	0	0	0	0					70	33	93			96				100	100
<i>Enterococcus faecalis</i>	46	7	100	100			100																		100	
Viridans group streptococci [°]	26	4											100												100	
<i>Enterococcus faecium</i> , all isolates	23	3	14	14			14																		87	
- vancomycin-susceptible	20	3	16	16			16																		100	
- vancomycin-resistant (VRE)	3	0	0	0			0																		0	100
<i>Streptococcus anginosus</i> group ^{°°}	17	2			0								100												100	
<i>Streptococcus pneumoniae</i>	8	1					80	80								50	100				80	75			100	
Group B streptococci ^{**}	7	1																			86	86			100	
Group A streptococci ^{**}	7	1																							100	
<i>Mycobacterium tuberculosis complex</i>	5	1																							100	

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Organism-Specific Notes:

- ^{^^} *H. influenzae* and *H. parainfluenzae*: Susceptibility to ampicillin was determined using beta-lactamase testing. Beta-lactamase-positive isolates are resistant to ampicillin but are generally susceptible to amoxicillin-clavulanic acid and cefuroxime.
- ^{**} Beta-hemolytic streptococci: Susceptibility testing to penicillin is not routinely performed since resistant strains have not been recognized. All isolates are considered susceptible to penicillin.
- [°] Viridans group streptococci: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.
- [†] *S. maltophilia*: Susceptibility to moxifloxacin was predicted based on levofloxacin susceptibility testing results.
- ^{°°} *S. anginosus* group: Please note that only a small proportion of these isolates were tested for susceptibilities. Please take this into consideration when interpreting the reported results.

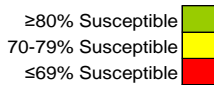
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All Inpatients

January 1, 2020 - December 31, 2020

All Urine Isolates – % Susceptible

	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid



ALL BACTERIA	721	—	23	64	77	72	64		3	46	49			79	54	70					
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ALL GRAM-NEGATIVE BACTERIA	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
ALL GRAM-NEGATIVE BACTERIA	513	100		58	72	99	87		1	61	66	75		83	73	62	93	52	94		
<i>Escherichia coli</i>	276	54	0	70	79	100	100		2	78	83	83	100	76	76	95	91	33	100		
<i>Klebsiella pneumoniae</i>	65	13	0	92	91	100	100		0	92	94	94		92	92	26	98	50	100		
<i>Pseudomonas aeruginosa</i>	54	11			89	91						91		93			96	98	98		
<i>Proteus mirabilis</i>	36	7	0	89	92	100	100		0	86	92	92	0	83	81	0	94	67	50		
<i>Enterobacter cloacae</i>	20	4	0	0	0	100	100		0	0	0	0		84	85	45	100	100	100		
<i>Klebsiella oxytoca</i>	13	3	0	85	85	100			0	69	92	92		100	100	77	100				
<i>Klebsiella aerogenes</i>	11	2	0	0	0	100	100		0	0	0	0		100	100	27	100	100	100		
<i>Citrobacter freundii</i>	9	2	0	0	0	100	100		0	0	0	0		100	78	89	89	100	100		
<i>Citrobacter koseri</i>	7	1	0	0	0	100	100		0	0	0	0		100	100	57	100	100	100		
<i>Morganella morganii</i>	6	1	0	0	0	100	100		0	0	0	0		83	83	0	83	100	100		
<i>Serratia marcescens</i>	6	1	0	0	0	100	100		0	0	0	0		100	100	0	100	100	100		

ALL GRAM-POSITIVE BACTERIA	#	%	Ampicillin	Amoxicillin-Clavulanic acid	Piperacillin-Tazobactam	Meropenem	Ertapenem	Cloxacillin	Cefazolin	Cephalexin	Ceftriaxone	Ceftazidime	Doxycycline	Ciprofloxacin	Trimethoprim-Sulfamethoxazole	Nitrofurantoin	Gentamicin	Tobramycin	Amikacin	Vancomycin	Linezolid
ALL GRAM-POSITIVE BACTERIA	208	100	80	80	88	7	7	7	7	7	7		33	69	9	89				96	100
<i>Enterococcus faecalis</i>	166	80	99	99	99								29	85		99				99	100
<i>Enterococcus faecium</i> , all isolates	22	11	9	9	9								14	9		4				73	100
- vancomycin-susceptible	16	8	12	12	12								19	12		6				100	100
- vancomycin-resistant (VRE)	6	3	0	0	0								0	0		0				0	100
<i>Staphylococcus aureus</i> , all isolates	17	8			82	82	82	82	82	82			94		100	100				100	100
- methicillin-susceptible	14	7			100	100	100	100	100	100			93		100	100				100	100
- methicillin-resistant (MRSA)	3	1			0	0	0	0	0	0			100		100	100				100	100
Coagulase-negative staphylococci	2	1			50	50	50	50	50				100		100	100				100	100
<i>Enterococcus gallinarum</i>	1	0	100	100	100								0	100		100				100	

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